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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/650,431	08/28/2003	Shigeyoshi Yoshida	114G1-152	7252

7590 03/18/2005

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EXAMINER

BERNATZ, KEVIN M

ART UNIT	PAPER NUMBER
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1773

DATE MAILED: 03/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/650,431

Applicant(s)

YOSHIDA ET AL.

Examiner

Kevin M Bernatz

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) 16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☒ Claim(s) 12 and 13 is/are objected to.
- 8) ☒ Claim(s) 1-16 are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 8/28/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Examiner's Comments

1. Regarding the limitation(s) "a frequency dispersion profile comprises at least two different dispersion portions" in claim 1, the Examiner has given the term(s) the broadest reasonable interpretation(s) consistent with the written description in applicants' specification as it would be interpreted by one of ordinary skill in the art. *In re Morris*, 127 F.3d 1048, 1054-55, 44 USPQ2d 1023, 1027 (Fed. Cir. 1997); *In re Donaldson Co., Inc.*, 16 F.3d 1190, 1192-95, 29 USPQ2d 1845, 1848-50 (Fed. Cir. 1994). See MPEP 2111. Specifically, the examiner notes that each dispersion portion, D#, is simply a frequency range in a frequency versus μ plot. The exact "range" in frequency which reads on the limitation "dispersion portion" is subjective and not claimed, however, for purposes of evaluating the prior art the Examiner has deemed that a minimum frequency range of 1 Hz must be used for a proper "dispersion portion" to be met.

2. Regarding the limitations "relatively high-frequency side" and "relatively low frequency side" in claim 1, the Examiner notes that individually "high frequency" and "low frequency" would be deemed relative terms, since what one person considers as "high" frequency or "low" frequency is not necessarily the same as what another person would consider "high" and "low", respectively. However, in view of the present claim language, the Examiner has interpreted the claim to simply require that one of the dispersion portions be located at a higher frequency range than the other, the

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dispersion portion at the higher frequency range being D1 and the dispersion portion at the lower frequency range being D2.

3. Regarding the limitation "indefinite shape" in claim 12, the Examiner notes that this language is not art defined and, while "acicular" shaped, "needle" shaped, "tabular" or "flat" are known shapes of particles, the Examiner deems that all of these classifications are estimates and not absolutes. I.e. "acicular" and "needle" generally mean that the particles are ellipsoidal in shape with one axis significantly longer than another (as opposed to "spherical", in which all the axis are approximately equal). Since none of these "classifications" are absolutes and the particles must have /some/ shape, the Examiner deems that "indefinite shape" reads on particles of any size and/or shape, be they acicular/needle-like, flat/tabular, spherical or a mixture of the above, since all particles will necessarily comprise a mixture of different "shapes" to some extent.

Election/Restrictions

4. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1 - 15, drawn to a magnetic loss material, classified in class 428, subclass 692.
 - II. Claim 16, drawn to a method of producing a magnetic loss material via grinding and molding, classified in class 252, subclass 62.51R+.
5. The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product as claimed can be made by another and materially different process, such as without grinding or molding.

6. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

7. During a telephone conversation with Mr. Bradley Ruben on March 14 a provisional election was made with traverse to prosecute the invention of Group I, claims 1 - 15. Affirmation of this election must be made by applicant in replying to this Office action. Claim 16 is withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

8. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Specification

9. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification. The Examiner notes that the disclosure contains some formalities which should be corrected to better define the disclosed invention. One example is the sentence on page 2, lines 11 – 12, which is improper English. Appropriate correction is required.

Claim Objections

10. Claims 12 and 13 are objected to because of the following informalities: "ones" is improper English and should be replaced with "at least one". Appropriate correction is required.

Claim Rejections - 35 USC § 102

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section

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351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

12. Claims 1 - 10 are rejected under 35 U.S.C. 102(a), (b) and/or (e) as being anticipated by Shinsuke et al. (JP 2001-210510-A). See provided Machine Translation of JP '510 A.

Regarding claim 1, Shinsuke et al. disclose a magnetic loss material comprising a soft magnetic powder and a binder binding the particles of the powder to one another (*Paragraphs 0016 and 0017*), the magnetic loss material having a frequency dispersion profile (FDP) of μ'' (*Figures 3 – 10*), wherein the FDP comprises at least two different dispersion portions including a first dispersion portion (D1) at a relatively high-frequency side and a second dispersion portion (D2) at a relatively low frequency side, wherein $\mu''_{\max}(D2) \geq \mu''_{\max}(D1)$ (*Figures 3 – 10*). For purposes of better illustrating the Examiner's position, please see Figure I, below.

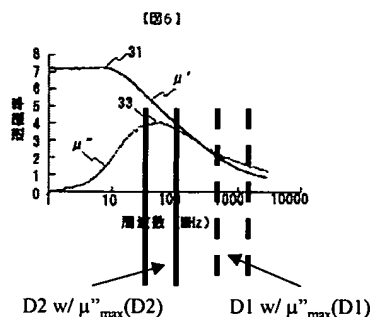


Figure I: Illustration of broadest reasonable interpretation of claim language

Regarding claims 2 - 4, Shinsuke et al. disclose “mutually different dispersion frequency regions” as illustrated above. Regarding the language that the dispersion is a dispersion “owing to magnetic resonance” (claims 2 and 4) or “owing to eddy current”

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(claim 3), the Examiner notes that these are functional limitations that are not further limiting in so far as the structure of the claimed product is concerned. Specifically, as long as the material exhibits magnetic resonance and/or eddy currents, then at least some of the disclosed profile in μ'' is directly a result of these properties, and is therefore deemed to meet the claimed limitation of being "owing to" these properties. Finally, regardless of how the profile is produced, the Examiner notes that the final products would not appear be patentably distinct since one of ordinary skill in the art would not be able to readily distinguish between a magnetic loss material exhibiting a frequency vs. μ'' plot meeting the claimed limitations caused by magnetic resonance, magnetic anisotropy, eddy currents, etc. I.e., it is deemed that the final, *observable* products would be virtually indistinguishable from one another.

Regarding the limitations in claim 5, it has been held that where claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a *prima facie* case of either anticipation or obviousness has been established and the burden of proof is shifted to applicant to show that prior art products do not necessarily or inherently possess characteristics of claimed products where the rejection is based on inherency under 35 USC 102 or on *prima facie* obviousness under 35 USC 103, jointly or alternatively. Therefore, the *prima facie* case can be rebutted by **evidence** showing that the prior art products do not necessarily possess the characteristics of the claimed product. *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977). "When the PTO shows a sound basis for believing that the products of the applicant and the

prior art are the same, the applicant has the burden of showing that they are not.” *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990).

In the instant case, the Examiner notes that $D1_{50}$ and $D2_{50}$ represent the “magnitude” of the dispersion and have different units than frequency (Δfr). However, for the purpose of evaluating the prior art the examiner notes that applicants are comparing the magnitudes of these properties, notwithstanding the difference in units. Since Δfr depends on the choice of $D1$ and $D2$, the Examiner deems that several of the Figures disclosed by Shinsuke et al. disclose frequency vs. μ plots where at least one selection of $D1$ and $D2$ would lead to the claimed limitations (e.g. consider the case where $\Delta fr = 1$ MHz. Therefore, in addition to the above disclosed limitations, the presently claimed property in claim 5 would have inherently been present because the selection of $D1$ and $D2$ are arbitrary and only one combination of $D1$ and $D2$ need meet the claimed limitations.

Regarding claims 6 - 10, Shinsuke et al. disclose using powders meeting applicants’ claimed limitations as options to obtaining the magnetic permeability properties (*Paragraphs 0012 – 0024; 0027 – 0029; 0032; and 0043 - 0046*). Regarding the limitation(s) “subjected to heat treatment at a temperature of 500 °C or more”, the Examiner notes that this limitation(s) are/(is a) process limitation(s) and is/are not further limiting in terms of the structure resulting from the claimed process. Specifically, in a product claim, as long as the prior art product meets the claimed structural limitations, the method by which the product is formed is not germane to the determination of patentability of the product unless an unobvious difference can be

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shown to result from the claimed process limitations. In the instant case, annealing is deemed to be known in the art as a method of adjusting the magnetic properties of soft magnetic materials and the results of "annealing at a temperature of 500 °C or more" are not deemed to result in an "unobvious" difference in the disclosed product.

13. Claims 1 – 9 and 11 - 15 are rejected under 35 U.S.C. 102(a), (b) and/or (e) as being anticipated by Yoshida et al. (U.S. Patent No. 5,827,445).

Regarding claims 1 – 9, 11 – 13 and 15, Yoshida et al. disclose a magnetic loss material comprising a soft magnetic powder and a binder binding the particles of the powder to one another (*col. 2, line 64 bridging col. 3, line 2*), including embodiments comprising either single kinds of compositions with a monotonous particle size distribution (*e.g. examples 1 – 3*) or multiple magnetic powders possessing different particle sizes (*e.g. example 4*).

Regarding the limitations "the magnetic loss material having a frequency dispersion profile ... greater than the first maximum value" (claim 1), "mutually different dispersion frequency regions" (claim 2), "owing to magnetic resonance" (claim 2), "owing to eddy current" (claim 3), "owing to magnetic resonance" (claim 4), "wherein either of ... second dispersion portion (D2)" (claim 5), "the relationship $fr_1 > fr_{(n+1)}$... not smaller than one" (claim 6), "has a single ... having mutually different magnitudes" (claim 7), "has a specific surface area between 0.5 m²/g and 2.0 m²/g" (claim 8), "has a specific surface area between 0.3 m²/g and 0.4 m²/g" (claim 9), "the powder particles in said first particle group ... smaller than the skin depth of the magnetic loss material"

(claim 11), “wherein ones (sic) of said powder particles are of indefinite shape, each of said first and second sizes being a diameter of each of said ones (sic)” (claim 12), “wherein ones (sic) of said powder particles are of a flat shape, each of said first and second sizes being a thickness of each of said ones (sic)” (claim 13), and “wherein the imaginary part ... the first frequency (fr1)” (claim 15), the Examiner deems that at least one of the disclosed embodiments (*examples 1 – 4*) inherently meet these claimed limitations.

In the instant case, the disclosed embodiments are substantially identical to the disclosed magnetic loss materials which are taught to meet the claimed limitations, and therefore the Examiner has sound basis for the position that the disclosed embodiments would inherently meet the claimed limitations. Applicants are reminded that a single embodiment meeting the claimed limitations is a *prima facie* case of anticipation.

Therefore, in addition to the above disclosed limitations, the presently claimed properties would have inherently been present in at least some or all of the disclosed examples because the disclosed examples are substantially identical in composition as the disclose compositions taught by applicants.

Regarding the limitation(s) in claim 14, the Examiner notes that these limitation(s) are/(is a) process limitation(s) and is/are not further limiting in terms of the structure resulting from the claimed process. Specifically, in a product claim, as long as the prior art product meets the claimed structural limitations, the method by which the product is formed is not germane to the determination of patentability of the product unless an unobvious difference can be shown to result from the claimed process limitations. In

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the instant case, regardless of how the particles were obtained, provided that the meet the claimed functional and structural limitations, the limitations of the overall product are met.

14. Claims 1 – 8 and 11 - 15 are rejected under 35 U.S.C. 102(a), (b) and/or (e) as being anticipated by Yoshida et al. (EP 785557 A1).

Regarding claim 1, Yoshida et al. disclose a magnetic loss material comprising a soft magnetic powder and a binder binding the particles of the powder to one another (*Abstract*), the magnetic loss material having a frequency dispersion profile (FDP) of μ'' (*Figures 6 – 9*), wherein the FDP comprises at least two different dispersion portions including a first dispersion portion (D1) at a relatively high-frequency side and a second dispersion portion (D2) at a relatively low frequency side, wherein $\mu''_{\max}(\text{D2}) \geq \mu''_{\max}(\text{D1})$ (*Figures 6 – 9*).

Regarding claims 2 - 4, Yoshida et al. disclose “mutually different dispersion frequency regions” based on the Examiner’s interpretation of “D1” and “D2”, as described previously. Regarding the language that the dispersion is a dispersion “owing to magnetic resonance” (claims 2 and 4) or “owing to eddy current” (claim 3), the Examiner notes that these are functional limitations which are met for identical reasons as described above.

Regarding the limitations in claim 5, these limitations are deemed to inherently be met for identical reasons as described above.

Regarding claims 6 - 8, Yoshida et al. disclose using powders meeting applicants' claimed limitations as options to obtaining the magnetic permeability properties (*Page 3, lines 23 – 25; page 4, line 43 bridging page 5, line 33; and examples*). Regarding the limitation(s) "subjected to heat treatment at a temperature of 500 °C or more", the Examiner notes that this limitation(s) are/(is a) process limitation(s) and is/are not further limiting in terms of the structure of the product for identical reasons as cited above.

Regarding claims 11 – 15, the Examiner deems that Yoshida et al. inherently disclose the claimed limitations for identical reasons as cited above (*see sample 3 of Yoshida et al.*). Applicants are reminded that claim 14 is directed to process limitations which are not deemed to result in a patentably distinct product from that disclosed in the Yoshida et al. invention.

Claim Rejections - 35 USC § 103

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. Claims 11 – 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shinsuke et al. (JP '510 A) as applied above, and further in view of Yoshida et al. ('445).

JP '510 A is relied upon as described above.

JP '510 A fail to disclose using a first and second powder particle size meeting applicants' claimed size limitations.

However, Yoshida et al. ('445) teach that the size of the particles relative to the skin depth is a results effective variable and can be varied to effect the frequency range in μ " that is covered by the interference suppressor (*col. 1, lines 6 – 9 and lines 52 – 67; col. 2, lines 21 – 32 and lines 59 – 64; col. 3, lines 8 – 11; col. 4, lines 10 – 58; and Examples*). While Yoshida et al. ('445) teach that *preferably* the average thickness is less than the skin depth, the Examiner notes that Yoshida et al. ('445) is primarily directed to single particle embodiments and Yoshida et al. ('445) does not exclude using particles with a greater average thickness. Therefore, the Examiner deems that it would have been obvious to one having ordinary skill in the art to use two different particles meeting applicants' claimed particle size limitations, since the particle size is a known results effective variable capable of being optimized through routine experimentation and the greater the difference in the particle μ " properties, the wider the frequency range covered by the interference suppressor. *In re Boesch*, 205 USPQ 215 (CCPA 1980); *In re Geisler*, 116 F. 3d 1465, 43 USPQ2d 1362, 1365 (Fed. Cir. 1997); *In re Aller*, 220 F.2d, 454, 456, 105 USPQ 233, 235 (CCPA 1955).

Regarding claims 12, 13 and 15, the added limitations in these claims are disclosed by the dual-particle combinations in Yoshida et al. ('445), as described above.

Regarding claim 14, these limitations are process limitations and are not germane to the determination of patentability of the *product* for the reasons described above.

17. Claims 1 – 7 and 11 – 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshida et al. ('445) as applied above, and further in view of Yoshida et al. (EP '557 A1).

Regarding claims 1 – 7 and 11 – 15, Yoshida et al. ('445) is relied upon as described above.

Regarding claim 1, while the Examiner has taken the position that there is sound basis that at least one of the embodiments disclosed by Yoshida et al. ('445), Yoshida et al. ('445) fail to explicitly disclose a soft magnetic powder meeting the claimed limitations in the FDP regarding the presence of D1, D2 and wherein $\mu''_{\max}(D2) \geq \mu''_{\max}(D1)$.

However, Yoshida et al. ('557 A1) teach that for suppressing electromagnetic interferences over a wide range of frequencies, it is desirable to use a soft magnetic material possessing a plurality of magnetic resonances, and hence peaks in μ'' , in frequency regions different from each other, so that μ'' is distributed over a wide frequency band (*page 2, line 56 bridging page 3, line 5 and page 5, lines 26 – 33*).

Therefore, even in the event that none of the embodiments disclosed by Yoshida et al. ('445) inherently meet the claimed limitation, it would still have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the device of Yoshida et al. ('445) to meet the above claimed limitation in order to suppress electromagnetic interferences over a wide range of frequencies taught by Yoshida et al. ('557 A1).

Regarding claims 2 – 7 and 11 - 15, Yoshida et al. ('445) is relied upon as disclosed above. In addition, regarding claims 11 – 15, the Examiner notes Yoshida et al. ('445) teach that the size of the particles relative to the skin depth is a results effective variable and can be varied to effect the frequency range in μ " that is covered by the interference suppressor (*col. 1, lines 6 – 9 and lines 52 – 67; col. 2, lines 21 – 32 and lines 59 – 64; col. 3, lines 8 – 11; col. 4, lines 10 – 58; and Examples*). While Yoshida et al. ('445) teach that *preferably* the average thickness is less than the skin depth, the Examiner notes that Yoshida et al. ('445) is primarily directed to single particle embodiments and Yoshida et al. ('445) does not exclude using particles with a greater average thickness. Therefore, the Examiner deems that it would have been obvious to one having ordinary skill in the art to use two different particles meeting applicants' claimed particle size limitations, since the particle size is a known results effective variable capable of being optimized through routine experimentation and the greater the difference in the particle μ " properties, the wider the frequency range covered by the interference suppressor.

18. Claims 8 – 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshida et al. ('445) as applied above in Paragraph 13, and further in view of Shinsuke et al. (JP '510 A) – and –

19. Claims 8 – 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshida et al. ('445) in view of Yoshida et al. (EP '557 A1) as applied above in Paragraph 17, and further in view of Shinsuke et al. (JP '510 A).

Yoshida et al. ('445) and Yoshida et al. ('557 A1) are relied upon as described above. The Examiner notes that Yoshida et al. ('445) disclose the claimed soft magnetic material compositions (*col. 3, line 66 bridging col. 4, line 2; col. 4, lines 59 – 67; and Examples*).

None of above disclose using soft magnetic particles explicitly meeting applicants' claimed specific surface area limitations, though the Examiner maintains that some of the disclose embodiments appear to inherently meet the claimed limitations as cited in Paragraph 13 above.

However, Shinsuke et al. teach that it is desired to use particles meeting applicants' claimed specific surface area limitations since such particles can be made to possess a wide range in μ " since they can be made to possess anisotropy fields having two mutually different regions (*Paragraphs 0011 – 0022 and Examples*).

It would therefore have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the device of either Yoshida et al. ('445) as applied in Paragraph 13, or Yoshida et al. ('445) in view of Yoshida et al. ('557 A1) as applied in Paragraph 17, to use particles meeting applicants' claimed specific surface area limitations as taught by Shinsuke et al. since such particles would possess a wide range in μ ", thereby being capable of suppressing electromagnetic interferences in a wide frequency range.

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20. Claims 8 – 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshida et al. (EP '557 A1) as applied above, and further in view of Shinsuke et al. (JP '510 A).

Yoshida et al. ('557 A1) is relied upon as described above.

Yoshida et al. ('557 A1) fail disclose using soft magnetic particles explicitly meeting applicants' claimed specific surface area limitations, though the Examiner maintains that some of the disclose embodiments appear to inherently meet the claimed limitations as cited in Paragraph 14 above.

However, Shinsuke et al. teach that it is desired to use particles meeting applicants' claimed specific surface area limitations since such particles can be made to possess a wide range in μ " since they can be made to possess anisotropy fields having two mutually different regions (*Paragraphs 0011 – 0022 and Examples*).

It would therefore have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the device of Yoshida et al. ('557 A1) to use particles meeting applicants' claimed specific surface area limitations as taught by Shinsuke et al. since such particles would possess a wide range in μ ", thereby being capable of suppressing electromagnetic interferences in a wide frequency range.

21. Claims 11 – 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshida et al. (EP '557 A1) as applied above, and further in view of Yoshida et al. ('445).

Yoshida et al. ('557 A1) is relied upon as described above.

Yoshida et al. ('557 A1) fail to explicitly disclose using a first and second powder particle size meeting applicants' claimed size limitations, though the Examiner maintains that some of the disclose embodiments appear to inherently meet the claimed limitations as cited in Paragraph 14 above.

However, Yoshida et al. ('445) teach that the size of the particles relative to the skin depth is a results effective variable and can be varied to effect the frequency range in μ " that is covered by the interference suppressor (*col. 1, lines 6 – 9 and lines 52 – 67; col. 2, lines 21 – 32 and lines 59 – 64; col. 3, lines 8 – 11; col. 4, lines 10 – 58; and Examples*). While Yoshida et al. ('445) teach that *preferably* the average thickness is less than the skin depth, the Examiner notes that Yoshida et al. ('445) is primarily directed to single particle embodiments and Yoshida et al. ('445) does not exclude using particles with a greater average thickness. Therefore, the Examiner deems that it would have been obvious to one having ordinary skill in the art to use two different particles meeting applicants' claimed particle size limitations, since the particle size is a known results effective variable capable of being optimized through routine experimentation and the greater the difference in the particle μ " properties, the wider the frequency range covered by the interference suppressor.

Regarding claims 12, 13 and 15, the added limitations in these claims are disclosed by the dual-particle combinations in Yoshida et al. ('445) for the reasons cited above in Paragraph 13.

Regarding claim 14, these limitations are process limitations and are not germane to the determination of patentability of the *product* for the reasons described above.


Conclusion

22. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin M Bernatz whose telephone number is (571) 272-1505. The examiner can normally be reached on M-F, 9:00 AM - 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney can be reached on (571) 272-1284. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KMB
March 16, 2005


Kevin M. Bernatz, PhD
Primary Examiner